



DOCKET NO.: ISIS-5316

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of:

Brenda F. Baker, et al.

Confirmation No.: 6115

Application No.: 10/701,257

Group Art Unit: 1635

Filing Date: November 4, 2003

Examiner: Not Yet Assigned

For: NON-PHOSPHOROUS-LINKED OLIGOMERIC COMPOUNDS AND THEIR  
USE IN GENE MODULATION

DATE OF DEPOSIT: March 22, 2004

I HEREBY CERTIFY THAT THIS PAPER IS BEING  
DEPOSITED WITH THE UNITED STATES POSTAL  
SERVICE AS FIRST CLASS MAIL, POSTAGE PREPAID,  
ON THE DATE INDICATED ABOVE AND IS  
ADDRESSED TO THE UNITED STATES PATENT AND  
TRADEMARK OFFICE, P.O. BOX 1450, ALEXANDRIA,  
VA 22313-1450.

Elizabeth A. McLoud

TYPED NAME: Elizabeth A. McLoud

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Pursuant to 37 CFR § 1.56 and in accordance with 37 CFR §§ 1.97-1.98, information relating to the above-identified application is hereby disclosed. Inclusion of information in this statement is not to be construed as an admission that this information is material as that term is defined in 37 CFR § 1.56(b).

In accordance with § 1.97(b), since this Information Disclosure Statement is being filed either within three months of the filing date of the above-identified application, within three months of the date of entry into the national stage of

the above identified application as set forth in § 1.491, before the mailing date of a first Office Action on the merits of the above-identified application, or before the mailing date of a first Office Action after the filing of request for continued examination under § 1.114, no additional fee is required.

- In accordance with § 1.129(a), this Information Disclosure Statement is being filed in connection with  the first or  second After Final Submission, therefore:
  - Certification in Accordance with § 1.97(e) is attached; or
  - The fee of \$180.00 as set forth in § 1.17(p) is attached.
- In accordance with § 1.97(c), this Information Disclosure Statement is being filed after the period set forth in § 1.97(b) above but before the mailing date of either a Final Action under § 1.113 or a Notice of Allowance under § 1.311, or before an action that otherwise closes prosecution in the application, therefore:
  - Certification in Accordance with § 1.97(e) is attached;
  - or
  - The fee of \$180.00 as set forth in § 1.17(p) is attached.
- In accordance with § 1.97(d), this Information Disclosure Statement is being filed after the mailing date of either a Final Action under § 1.113 or a Notice of Allowance under § 1.311 but before, or simultaneously with, the payment of the Issue Fee, therefore included are: Certification in Accordance with § 1.97(e); and the submission fee of \$180.00 as set forth in § 1.17(p).
- Copies of each of the references listed on the attached Form PTO-1449 are enclosed herewith.

- Copies of references listed on the attached Form PTO-1449 are enclosed herewith
- Copies of references listed on the attached Form PTO 1449 are not required to be submitted pursuant to the June 30, 2003 recent revisions to 37 CFR § 1.98(a)(2)(i).

EXCEPT THAT:

- In view of the voluminous nature of references [list as appropriate], and the likelihood that these references are available to the Examiner, copies are not enclosed herewith.
- In accordance with § 1.98(d), copies of the following references listed on the attached Form PTO-1449 are not enclosed herewith because they were previously cited by or submitted to the U.S. Patent and Trademark Office in patent application(s) for which a claim for priority under 35 U.S.C. § 120 have been made in the instant application:
  - Copies of references **1-26, 153-180 and 227-233** listed on the attached Form PTO-1449 were previously cited by or submitted to the Patent and Trademark Office in prior Application No. **08/659,440**, filed **June 6, 1996 now U.S. Patent No. 5,898,031**; copies of references **27-110, 181-189 and 234** listed on the attached Form PTO-1449 were previously cited by or submitted to the Patent and Trademark Office in prior Application No. **08/870,094**, filed **June 6, 1997 now U>S> Patent No. 6,107,094**; copies of references **111-126 and 190-194** listed on the attached Form PTO-1449 were previously

cited by or submitted to the Patent and Trademark Office in prior Application No. 09/479,783, filed **January 7, 2000**; a copy of reference 235 listed on the attached Form PTO-1449 was previously cited by or submitted to the Patent and Trademark Office in prior Application No. 10/078,949, filed **February 20, 2002**.

Please charge any deficiency or credit any overpayment to Deposit Account No. 23-

3050. This form is submitted in duplicate.

The relevance of those listed references which are not in the English language is as follows:

An English language abstract has been provided for reference 237 which is not in the English language.

Date: *March 22, 2004*

*Jane Ingles*  
Jane E. Ingles  
Registration No. 48,444

WOODCOCK WASHBURN LLP  
One Liberty Place - 46th Floor  
Philadelphia, PA 19103  
Telephone: (215) 568-3100  
Facsimile: (215) 568-3439

© 2004 WW



<b>Form PTO-1449 Modified</b>		Docket No. ISIS-5316	Application No. 10/701,257
List of Patent and Publications Cited by Applicant (Use several sheets if necessary)		Applicant Brenda F. Baker, et al.	
U.S. Department of Commerce Patent and Trademark Office		Filing Date November 4, 2003	Group 1635
		Confirmation No. 6115	

**OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)**

*	<b>1</b>	Ausubel, et al., Eds., Current Protocols in Molecular Biology, <b>1988</b> , Wiley & Sons, New York
	<b>2</b>	Beaucage S. and Iyer, R., "Advances in the synthesis of oligonucleotides by the phosphoramidite approach", <i>Tetrahedron Letters</i> , <b>1992</b> , <i>48</i> , 2223-2311
	<b>3</b>	Beaucage S. and Iyer, R., "The synthesis of modified oligonucleotides by the phosphoramidite approach and their applications", <i>Tetrahedron</i> , <b>1993</b> , <i>49</i> , 6123-6194
	<b>4</b>	Bhat, et al., "A Simple and Convenient Method for the Selective N-Acylations of Cytosine Nucleosides", <i>Nucleosides and Nucleotides</i> , <b>1989</b> , <i>8</i> , 179-183
	<b>5</b>	Crooke, S.T. and Bennett, C.F., "Progress in Antisense Oligonucleotide Therapeutics", <i>Annu. Rev. Pharmacol. Toxicol.</i> , <b>1996</b> , <i>36</i> , 107-129
	<b>6</b>	Crooke, et al., "Kinetic characteristics of Escherichia coli Rnase H1: cleavage of various antisense oligonucleotide-RNA duplexes", <i>Biochem. J.</i> , <b>1995</b> , <i>312</i> , 599-608
	<b>7</b>	Dagle, et al., "Targeted degradation of mRNA in Xenopus oocytes and embryos directed by modified oligonucleotides: studies of An2 and cyclin in embryogenesis", <i>Nucleic Acids Research</i> , <b>1990</b> , <i>18</i> , 4751-4757
	<b>8</b>	Dagle, et al., "Pathways of Degradation and Mechanism of Action of Antisense Oligonucleotides in <u>Xenopus laevis</u> Embryos", <i>Antisense Res. And Dev.</i> , <b>1991</b> , <i>1</i> , 11-20
	<b>9</b>	Dagle, et al., "Physical properties of oligonucleotides containing phosphoramidate-modified internucleoside linkages", <i>Nucleic Acids Research</i> , <b>1991</b> , <i>19</i> , 1805-1810
	<b>10</b>	Englisch, U. And Gauss, D.H., "Chemically Modified Oligonucleotides as Probes and Inhibitors", <i>Angewandt Chemie, International Edition Engl.</i> , <b>1991</b> , <i>30</i> , 613-629

EXAMINER	DATE CONSIDERED
----------	-----------------

\* A copy of this reference will not be forwarded to the U.S. Patent and Trademark Office since it is believed to be too voluminous and easily obtainable by the Examiner.

<b>Form PTO-1449 Modified</b>	Docket No. ISIS-5316	Application No. 10/701,257
List of Patent and Publications Cited by Applicant (Use several sheets if necessary)	Applicant Brenda F. Baker, et al.	
U.S. Department of Commerce Patent and Trademark Office	Filing Date November 4, 2003	Group 1635
	Confirmation No. 6115	

**OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)**

11	Haeuptle and Dobberstein, "Translation arrest by oligonucleotides complementary to mRNA coding sequences yields polypeptides of predetermined length", <i>Nucleic Acids Res.</i> , 1986, 14, 1427-1448
12	Eder, P.S. and Walder, J.A., "Ribonuclease H from K562 Human Erythroleukemia Cells", <i>J. Biol. Chem.</i> , 1991, 266, 6472-6479
13	Kawasaki, et al., "Uniformly Modified 2'-Deoxy-2'-fluoro Phosphorothioate Oligonucleotides as Nuclease-Resistant Antisense Compounds with High Affinity and Specificity for RNA Targets", <i>J. Med. Chem.</i> , 1993, 36, 831-841
14	Kawasaki, et al., "Synthesis and Biophysical Studies of 2'-dRIBO-2'-F Modified Oligonucleotides", ISIS Pharmaceuticals, Inc., 2280 Faraday Avenue, Carlsbad, CA 92008, USA
15	Martin, "Ein neuer Zugang zu 2'-O-Alkylribonucleosiden und Eigenschaften deren Oligonucleotide", <i>Helv. Chim. Acta.</i> , 1995, 78, 486-504
16	Monia, et al., "Selective Inhibition of Mutant Ha-ras mRNA Expression by Antisense Oligonucleotides", <i>J. Biol. Chem.</i> , 1992, 267, 19954-19962
17	Monia, et al., "Evaluation of 2'-Modified Oligonucleotides Containing 2'-Deoxy Gaps as Antisense Inhibitors of Gene Expression", <i>J. Biol. Chem.</i> , 1993, 268, 14514-14522
18	Reese, C.B., et al., "4-(1,2,4-Triazol-1-yl)-and 4-(3-Nitro-1,2,4-triazol-1-yl)-1-(β-D-Arabinofuranosyl)cytosine(Ara-C)", <i>J. Chem. Soc. Perkin Trans. I</i> , 1982, pgs. 1171-1176
19	Robins, et al., "Nucleic acid related compounds. 41. Restricted furanose conformations of 3',5'-O(1,1,3,3-tetraisopropylidene-1,3-diy) nucleosides provide a convenient evaluation of anomeric configuration <sup>1,2</sup> ", <i>Can. J. Chem.</i> , 1983, 61, 1911-1920
20	Saison-Behmoaras, T., et al., "Short modified antisense oligonucleotides directed against Ha-ras point mutation induce selective cleavage of the mRNA and inhibit T24 cells proliferation", <i>EMBO</i> , 1991, 10, 1111-1118

**EXAMINER****DATE CONSIDERED**

<b>Form PTO-1449 Modified</b>	Docket No. ISIS-5316	Application No. 10/701,257
List of Patent and Publications Cited by Applicant (Use several sheets if necessary)	Applicant Brenda F. Baker, et al.	
U.S. Department of Commerce Patent and Trademark Office	Filing Date November 4, 2003	Group 1635
	Confirmation No. 6115	

**OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)**

*	<b>21</b>	Concise Encyclopedia of Polymer Science and Engineering, pgs. 858-859, Kroschwitz, J.I., Ed., John Wiley & Sons, 1990
*	<b>22</b>	Oligonucleotide Synthesis, A Practical Approach, M.J. Gait, Ed., IRL Press, 1984
*	<b>23</b>	Oligonucleotide and Analogs, A Practical Approach, F. Eckstein, Ed., IRL Press, 1991, Chapters 1-7
	<b>24</b>	De Mesmeker, et al., "Antisense Oligonucleotides", <i>Acc. Chem. Res.</i> , 1995, 28, 366-374
	<b>25</b>	Sands, et al., "Biodistribution and Metabolism of Internally <sup>3</sup> H-Labeled Olionucleotides. II. 3',5'-Blocked Oligonucleotides", <i>Am. Soc. Pharmacol. Exp. Ther.</i> , 1995, 47, 636-646
	<b>26</b>	Strickland, et al., "Antisense RNA Directed Against the 3' Noncoding Region Prevents Dormant mRNA Activation in Mouse Oocytes", <i>Science</i> , 1988, 241, 680-684
	<b>27</b>	Goodchild, et al., "Conjugates of Oligonucleotides and Modified Oligonucleotides: A Review of their Synthesis and Properties", <i>Bioconjugate Chem.</i> , 1990, 1(3), 165-187
	<b>28</b>	Menelev, et al., "Study of antisense oligonucleotide phosphorothioates containing segments of oligodeoxynucleotides and 2'-methyloligoribonucleotides," <i>Bioorg. &amp; Med. Chem. Lett.</i> , 1994, 4(24), 2929-2934
	<b>29</b>	Lengyel, <i>J. Enzym. Res.</i> , 1987, 7, 511-519
	<b>30</b>	Milligan, <i>J. Med. Chem.</i> , 1993, 36, 1923

EXAMINER	DATE CONSIDERED
----------	-----------------

\* A copy of these references will not be forwarded to the U.S. Patent and Trademark Office since they are believed to be too voluminous and easily obtainable by the Examiner.

<b>Form PTO-1449 Modified</b>		Docket No. ISIS-5316	Application No. 10/701,257
List of Patent and Publications Cited by Applicant (Use several sheets if necessary)		Applicant Brenda F. Baker, et al.	
U.S. Department of Commerce Patent and Trademark Office		Filing Date November 4, 2003	Group 1635
		Confirmation No. 6115	
<b>OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)</b>			
	<b>31</b>	Tseng, et al., "Antisense Oligonucleotide Technology in the Development of Cancer Therapeutics", <i>Cancer Gene Therapeutics</i> , 1994, 1, 65-71	
	<b>32</b>	Westermann, et al., "Inhibition of expression of SV40 virus large T-antigen by antisense oligodeoxyribonucleotides", <i>Biomed. B. Acta.</i> , 1989, 48, 85-93	
	<b>33</b>	Stein, C.A. et al., "Antisense Oligonucleotides as Therapeutic Agents - Is the Bullet Really Magical?", <i>Science</i> , 1993, 261, 1004-1012	
	<b>34</b>	Stull, et al., "Antigene, Ribozyme and Aptamer Nucleic Acid Drugs: Progress and Prospects", <i>Pharm. Res.</i> , 1995, <i>Pharm. Rev.</i> , 12, 465-482	
	<b>35</b>	Uhlmann, et al., "Antisense Oligonucleotides: A New Therapeutic Principle", <i>Chem. Rev.</i> , 1990, 90, 543	
	<b>36</b>	Akashi, et al., "Novel Stationary Phases for Affinity Chromatography. Nucleobase-Selective Recognition of Nucleosides and Nucleotides on Poly(9-vinyladenine)-Supported Silica Gel <sup>1)</sup> ", <i>Chem. Letters</i> , 1988, 1093-1096	
	<b>37</b>	Alberts, et al., "DNA-Cellulose Chromatography", <i>Meth. Enzymol.</i> , 1971, 21, 198-217	
	<b>38</b>	Arndt-Jovin, et al., "Covalent Attachment of DNA to Agarose", <i>Eur. J. Biochem.</i> , 1975, 54, 411-418	
	<b>39</b>	Blanks, et al., "An oligodeoxynucleotide affinity column for the isolation of sequence specific DNA binding proteins", <i>Nucleic Acids Res.</i> , 1988, 16, 10283-10299	
	<b>40</b>	Blomberg, P., "Control of replication of plasmid R1: the duplex between the antisense RNA, CopA, and its target, CopT, is processed specifically <i>in vivo</i> and <i>in vitro</i> by RNase III", <i>EMBO J.</i> , 1990, 9, 2331-2340	
<b>EXAMINER</b>		<b>DATE CONSIDERED</b>	

<b>Form PTO-1449 Modified</b>		Docket No. ISIS-5316	Application No. 10/701,257
List of Patent and Publications Cited by Applicant (Use several sheets if necessary)		Applicant Brenda F. Baker, et al.	
U.S. Department of Commerce Patent and Trademark Office		Filing Date November 4, 2003	Group 1635
		Confirmation No. 6115	
<b>OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)</b>			
	<b>41</b>	Bunemann, et al., <b>Immobilization of denatured DNA to macroporous supports: I. Efficiency of different coupling procedures</b> , <i>Nucleic Acids Res.</i> , <b>1982</b> , <i>10</i> , 7163-7180	
	<b>42</b>	Bunemann, H., <b>"Immobilization of denatured DNA to macroporous supports: II. Steric and kinetic parameters of heterogeneous hybridization reactions"</b> , <i>Nucleic Acids Res.</i> , <b>1982</b> , <i>10</i> , 7181-7196	
	<b>43</b>	Chodosh, et al., <b>"A Single Polypeptide Possesses the Binding and Transcription Activities of the Adenovirus Major Late Transcription Factor"</b> , <i>Mol. Cell. Biol.</i> , <b>1986</b> , <i>6</i> , 4723-4733	
	<b>44</b>	Crooke, et al., <b>"Pharmacokinetic Properties of Several Novel Oligonucleotide Analogs in mice"</b> , <i>J. Pharmacol. Exp. Therm.</i> , <b>1996</b> , <i>277</i> , 923-927	
	<b>45</b>	Dake, et al., <b>"Purification and Properties of the Major Nuclease from Mitochondria of <i>Saccharomyces cerevisiae</i>"</b> , <i>J. Biol. Chem.</i> , <b>1988</b> , <i>263</i> , 7691-7702	
	<b>46</b>	Day, et al., <b>"Immobilization of polynucleotides on magnetic particles"</b> , <i>Biochem. J.</i> , <b>1991</b> , <i>278</i> , 735-740	
	<b>47</b>	Drmanac, et al., <b>"DNA Sequence Determination by Hybridization: A Strategy for Efficient Large-Scale Sequencing"</b> , <i>Science</i> , <b>1993</b> , <i>260</i> , 1649-1652	
	<b>48</b>	Duncan, et al., <b>"Affinity Chromatography of a Sequence-Specific DNA Binding Protein Using Teflon-Linked Oligonucleotides"</b> , <i>Anal. Biochem.</i> , <b>1988</b> , <i>169</i> , 104-108	
	<b>49</b>	Dunn, J.J. and Studier, F.W., <b>"Effect of RNAase III Cleavage on Translation of Bacteriophage T7 Messenger RNAs"</b> , <i>J. Mol. Biol.</i> , <b>1975</b> , <i>99</i> , 487-499	
	<b>50</b>	Elela, et al., <b>"RNase III Cleaves Eukaryotic Preribosomal RNA at a U3 snoRNP-Dependent Site"</b> , <i>Cell</i> , <b>1996</b> , <i>85</i> , 115-124	
<b>EXAMINER</b>		<b>DATE CONSIDERED</b>	

<b>Form PTO-1449 Modified</b>		Docket No. ISIS-5316	Application No. 10/701,257
List of Patent and Publications Cited by Applicant (Use several sheets if necessary)		Applicant Brenda F. Baker, et al.	
U.S. Department of Commerce Patent and Trademark Office		Filing Date November 4, 2003	Group 1635
		Confirmation No. 6115	
<b>OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)</b>			
	<b>51</b>	Fahy, et al., "Design and synthesis of polyacrylamide-based oligonucleotide supports for use in nucleic acid diagnostics", <i>Nucl. Acids Res.</i> , 1993, 21, 1819-1826	
	<b>52</b>	Fishel, et al., "Z-DNA Affinity Chromatography", <i>Methods Enzymol.</i> , 1990, 184, 328-342	
	<b>53</b>	Fodor, et al., "Light-Directed, Spatially Addressable Parallel Chemical Synthesis", <i>Science</i> , 1991, 251, 767-773	
	<b>54</b>	Fusi, et al., "Ribonucleases from the extreme thermophilic archaebacterium S. Solfataricus", <i>Eur. J. Biochem.</i> , 1993, 16, 305-310	
	<b>55</b>	Gabrielsen, et al., "Magnetic DNA affinity purification of yeast transcription factor $\tau$ -a new purification principle for the ultrarapid isolation of near homogeneous factor", <i>Nucleic Acids Research</i> , 1989, 17, 6253-6267	
	<b>56</b>	Gbenle, "Trypanosoma brucei: Calcium-Dependent Endoribonuclease is Associated with Inhibitor Protein", <i>Exp. Parasitol.</i> , 1990, 71, 432-438	
	<b>57</b>	Gbenle, "Simultaneous Isolation of Cytoplasmic Endoribonuclease and Exoribonuclease of Trypanosoma Brucei", <i>Mol. Biochem. Parasitol.</i> , 1985, 15, 37-47	
	<b>58</b>	Gerdes, K., et al., "Mechanism of Killer Gene Activation. Antisense RNA-dependent RNase III Cleavage Ensures Rapid Turn-over of the Stable-Hok, SrbN and PndA Effector Messenger RNAs", <i>J. Mol. Biol.</i> , 1992, 226, 637-649	
	<b>59</b>	Gingeras, et al., "Hybridization properties of immobilized nucleic acids", <i>Nucl. Acids Res.</i> , 1987, 15, 5373-5391	
	<b>60</b>	Goldkorn, T. And Prockop, D.J., "A simple and efficient enzymatic method for covalent attachment of DNA to cellulose. Application for hybridization-restriction analysis and for <i>in vitro</i> synthesis of DNA probes", <i>Nucleic Acids Res.</i> , 1986, 14, 9171-9191	
<b>EXAMINER</b>		<b>DATE CONSIDERED</b>	

<b>Form PTO-1449 Modified</b>		Docket No. ISIS-5316	Application No. 10/701,257
List of Patent and Publications Cited by Applicant (Use several sheets if necessary)		Applicant Brenda F. Baker, et al.	
U.S. Department of Commerce Patent and Trademark Office		Filing Date November 4, 2003	Group 1635
		Confirmation No. 6115	
<b>OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)</b>			
	<b>61</b>	Goss, T.A. and Bard, M., "High-performance affinity chromatography of DNA", <i>J. Chromatogr.</i> , 1990, 508, 279-287	
	<b>62</b>	Guo, et al., "Direct fluorescence analysis of genetic polymorphisms by hybridization with oligonucleotide arrays on glass supports", <i>Nucl. Acids Res.</i> , 1994, 22, 5456-5465	
	<b>63</b>	Kadonaga, J.T. and Tjian, R., "Affinity purification of sequence-specific DNA binding proteins", <i>Proc. Natl. Acad. Sci. USA</i> , 1986, 83, 5889-5893	
	<b>64</b>	Kadonaga, J.T., "Purification of Sequence-Specific Binding Proteins b DNA Affinity Chromatography", <i>Methods in Enzymology</i> , 1991, 208, 10-23	
	<b>65</b>	Kasher, et al., "Rapid Enrichment of HeLa Transcription Factors IIIB and IIIC by Using Affinity Chromatography Based on Avidin-Biotin Interactions", <i>Mol. And Cell. Biol.</i> , 1986, 6, 3117-3127	
	<b>66</b>	Kawaguchi, et al., "Purification of DNA-binding transcription factors by their selective adsorption of the affinity atex particles", <i>Nucleic Acids Research</i> , 1989, 17, 6229-6240	
	<b>67</b>	Kennedy, "Hydrophobic Chromatography", <i>Methods in Enzymology</i> , 1990, 182, 339-343	
	<b>68</b>	Knecht, D., "Application of Antisense RNA to the Study of the Cytoskeleton: Background, Principles, and a Summary of Results Obtained with Myosin Heavy Chain", <i>Cell Motil. and Cytoskel.</i> , 1989, 14, 92-102	
	<b>69</b>	Knochbin and Lawrence, "An antisense RNA involved in p53 mRNA maturation in murine erythroleukemia cells induced to differentiate", <i>EMBO J.</i> , 1989, 8, 4107-4114	
	<b>70</b>	Krinke, L. And Wulff, D., "RNase III-dependent hydrolysis of λcII-O gene mRNA mediated by λ OOP antisense RNA", <i>Genes &amp; Devel.</i> , 1990, 4, 2223-2233	
<b>EXAMINER</b>		<b>DATE CONSIDERED</b>	

<b>Form PTO-1449 Modified</b>		Docket No. ISIS-5316	Application No. 10/701,257
List of Patent and Publications Cited by Applicant (Use several sheets if necessary)		Applicant Brenda F. Baker, et al.	
U.S. Department of Commerce Patent and Trademark Office		Filing Date November 4, 2003	Group 1635
		Confirmation No. 6115	

**OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)**

	<b>71</b>	Krystal, et al., "N-myc mRNA Forms an RNA-RNA Duplex with Endogenous Antisense Transcripts", <i>Mol. And Cell. Biol.</i> , 1990, 10, 4180-4191
	<b>72</b>	Liao, "A pyrimidine-guanine sequence-specific ribonuclease from <i>Rana catesbeiana</i> (bullfrog) oocytes", <i>Nucl. Acids Res.</i> , 1992, 20, 1371-1377
	<b>73</b>	Lohrmann, et al., "New Solid Supports for DNA Synthesis" <i>DNA</i> , 1984, 3, 122
	<b>74</b>	Lund, et al., "Assessment of methods for covalent binding of nucleic acids to magnetic beads, Dynabeads™, and the characteristics of the bound nucleic acids in hybridization reactions", <i>Nucl. Acids Res.</i> , 1988, 16, 10861-10880
	<b>75</b>	Maniak, M. And Nellen, W., "Evidence for a feedback regulated back-up promoter which controls permanent expression of a <i>Dictyostelium</i> gene", <i>Nucl. Acids Res.</i> , 1990, 18, 5375-5380
	<b>76</b>	Matson, et al., "Biopolymer Synthesis on Polypropylene Supports", <i>Anal. Biochem.</i> , 1994, 217, 306-310
	<b>77</b>	Maskos, U. And Southern, E.M., "Oligonucleotide hybridisations on glass supports: a novel linker for oligonucleotide synthesis and hybridisation properties of oligonucleotides synthesised <i>in situ</i> ", <i>Nucl. Acids. Res.</i> , 1992, 20, 1679-1684
	<b>78</b>	Meegan, J.M. and Marcus, P.I., "Double-Stranded Ribonuclease Coinduced with Interferon", <i>Science</i> , 1989, 244, 1089-1091
	<b>79</b>	Narhi, et al., "Hydrophobic Interaction Chromatography in Alkaline pH", <i>Anal. Biochem.</i> , 1989, 182, 266-270
	<b>80</b>	Nellen, W., C., "What makes an mRNA anti-sense-itive?", <i>Curr. Opin. Cell. Biol.</i> , 1993, 18, 419-424

**EXAMINER****DATE CONSIDERED**

<b>Form PTO-1449 Modified</b>		Docket No. ISIS-5316	Application No. 10/701,257
List of Patent and Publications Cited by Applicant (Use several sheets if necessary)		Applicant Brenda F. Baker, et al.	
U.S. Department of Commerce Patent and Trademark Office		Filing Date November 4, 2003	Group 1635
		Confirmation No. 6115	
<b>OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)</b>			
	<b>81</b>	Nellen, W., et al., "Mechanisms of gene regulation by endogenous and artificially introduced antisense RNA", <i>Biochem. Soc. Trans.</i> , 1992, 20, 750-754	
	<b>82</b>	Nitta, et al., "Purification and Some Properties of Ribonuclease from <i>Xenopus laevis</i> Eggs", <i>Biol. Pharm. Bull. (Jpn.)</i> , 1993, 16, 353-356	
	<b>83</b>	Noguchi, et al., "Characterization of an Antisense Inr Element in the eIF-2 $\alpha$ Gene", <i>J. Biol. Chem.</i> , 1994, 269, 29161-29167	
	<b>84</b>	Noyes, et al., "Nucleic Acid Hybridization Using DNA Covalently Coupled to Cellulose", <i>Cell</i> , 1975, 5, 301-310	
	<b>85</b>	Pease, et al., "Light-generated oligonucleotide arrays for rapid DNA sequence analysis", <i>Proc. Natl. Acad. Sci. USA</i> , 1994, 91, 5022-5026	
	<b>86</b>	Pon, et al., "Derivatization of Controlled Pore Glass Beads for Solid Phase Oligonucleotide Synthesis", <i>BioTech.</i> , 1988, 6, 768-773	
	<b>87</b>	Prokipcak, et al., "Purification and Properties of a Protein that Binds to the C-terminal Coding Region of Human c-myc mRNA", <i>J. Biol. Chem.</i> , 1994, 269, 9261-2969	
	<b>88</b>	Saito, H. And Richardson, C., "Processing of mRNA by Ribonuclease III Regulates Expression of Gene 1.2 of Bacteriophage T7", 1981, <i>Cell</i> , 27, 533-542	
	<b>89</b>	Schott, "Template-Chromatographie An Stationar Gebundenen Oligonukleotiden", <i>J. Chromatogr.</i> , 1975, 115, 461-476	
	<b>90</b>	Seliger, H., "Handelsubliche Polymere als Trager in der Oligonucleotidsynthese, 1", <i>Die Makromolekulart Chemie</i> , 1975, 176, 1611-1627	
<b>EXAMINER</b>		<b>DATE CONSIDERED</b>	

<b>Form PTO-1449 Modified</b>	Docket No. ISIS-5316	Application No. 10/701,257
List of Patent and Publications Cited by Applicant (Use several sheets if necessary)	Applicant Brenda F. Baker, et al.	
U.S. Department of Commerce Patent and Trademark Office	Filing Date November 4, 2003	Group 1635
	Confirmation No. 6115	

**OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)**

91	Seliger, H., and Aumann, G., "Trager-Oigonucleotidsynthese an unvernetzten Copolymeren aus Vinylalkohol und N-Vinylpyrrolidon", <i>Die Makromolekulare Chemie</i> , 1975, 176, 609-627
92	Seliger, H. And Aumann, G., "Oligonucleotide Synthesis on a Polymer Support Soluble in Water and Pyridine", <i>Tetrahedron Letters</i> , 1973, No. 31, 2911-2914
93	Siddell, S.G., "RNA Hybridization to DNA Coupled with Cyanogen-Bromide-Activated Sephadex", <i>Eur. J. Biochem.</i> , 1978, 92, 621-629
94	Smith, et al., "The synthesis of oigonucleotides containing an aliphatic amino group at the 5' terminus: synthesis of fluorescent DNA primers for use in DNA sequence analysis", <i>Nucl. Acids Res.</i> , 1985, 13, 2399-2412
95	Stoldt, P. And Zillig, W., "Antisense RNA mediates transcriptional procesing in an archaeabacterium, indicating a novel kind of RNase activity", <i>Mol. Microbiol.</i> , 1993, 7, 875-882
96	Syvanen, et al., "Quantification of polymerase chain reaction products by affinity-based hybrid collection", <i>Nucl. Acids Res.</i> , 1988, 16, 11327-11338
97	Szyf, et al., "Growth Regulation of Mouse DNA Methyltransferase Gene Expression", <i>J. Biol. Chem.</i> , 1991, 266, 10027-10030
98	McBride, L.J. and Caruthers, M.H., "An Investigation of Several Deoxynucleoside Phosphoramidites Useful for Synthesizing Deoxyoligonucleotides", <i>Tetrahedron Letters</i> , 1983, 24, 245-248
99	Van Ness, et al., "A versatile solid support system for oligodeoxynucleotide probe-based hybridization assays", <i>Nucleic Acids Research</i> , 1991, 19, 3345-3350
100	Volk, et al., "An antisense transcript from the Xenopus laevis bFGF gene coding for an evolutionarily conserved 24 kd protein", <i>EMBO J.</i> , 1989, 8, 2983-2988

<b>EXAMINER</b>	<b>DATE CONSIDERED</b>
-----------------	------------------------

<b>Form PTO-1449 Modified</b>		Docket No. ISIS-5316	Application No. 10/701,257
List of Patent and Publications Cited by Applicant (Use several sheets if necessary)		Applicant Brenda F. Baker, et al.	
U.S. Department of Commerce Patent and Trademark Office		Filing Date November 4, 2003	Group 1635
		Confirmation No. 6115	
<b>OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)</b>			
	<b>101</b>	Wetlaufer, et al., "Surfactant-Mediated Protein Hydrophobic-Interaction Chromatography", <i>J. Chromatography</i> , 1986, 359, 55-60	
	<b>102</b>	Wu, et al., "Purification and Properties of <i>Drosophila</i> Heat Shock Activator Protein", <i>Science</i> , 1987, 238, 1247-1253	
	<b>103</b>	Wu, et al., "High Resolution Separation and Analysis of Biological Macromolecules", <i>Methods in Enzymology</i> , 1996, 270, 27-47	
	<b>104</b>	Yashima, et al., "High-performance affinity chromatography of oligonucleotides on nucleic acid analogue immobilized silica gel columns", <i>J. Chromatog.</i> , 1992, 603, 111-119	
	<b>105</b>	Yasuda, et al., "Purification and characterization of a ribonuclease from human spleen", <i>Eur. J. Biochem.</i> , 1990, 191, 523-529	
	<b>106</b>	Zarytova, et al., "Affinity Chromatography of DNA Fragments and P-Modified Oligonucleotides", <i>Analyt. Biochem.</i> , 1990, 188, 214-218	
	<b>107</b>	Zuckermann, et al., "Efficient methods for attachment of thiol specific probes to the 3'-ends of synthetic oligodeoxyribonucleotides", <i>Nucleic Acids Research</i> , 1987, 15, 5305-5321	
	<b>108</b>	Hyrup, B. And Nielsen, P., "Peptide Nucleic Acids (PNA): Synthesis, Properties and Potential Applications", <i>Bioorganic &amp; Med. Chem.</i> , 1996, 4, 5-23	
	<b>109</b>	Monia, et al., "Antitumor activity of a phosphorothioate antisense oligodeoxynucleotide targeted against c-raf kinase", <i>Nature Medicine</i> , 1996, 2, 668-675	
	<b>110</b>	Ohtsuki, et al., "Isolation and purification of double-stranded ribonuclease from calf thymus", <i>J. Biol. Chem.</i> , 1977, 252, 483-491	
<b>EXAMINER</b>		<b>DATE CONSIDERED</b>	

<b>Form PTO-1449 Modified</b>		Docket No. ISIS-5316	Application No. 10/701,257
List of Patent and Publications Cited by Applicant (Use several sheets if necessary)		Applicant Brenda F. Baker, et al.	
U.S. Department of Commerce Patent and Trademark Office		Filing Date November 4, 2003	Group 1635
		Confirmation No. 6115	
<b>OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)</b>			
	<b>111</b>	Agrawal, S. et al., "Synthesis and Anti-HIV Activity of Oligoribonucleotides and Their Phosphorothioate Analogs," <i>Ann. N.Y. Acad. Sci.</i> , <b>1992</b> , 2-10	
	<b>112</b>	Agrawal, S., "Antisense Oligonucleotides: Towards Clinical Trials," <i>TIBTECH</i> , <b>1996</b> , 14, 376-388	
	<b>113</b>	Arya, S. K. et al., "Inhibition of RNA Directed DNA Polymerase of Murine Leukemia Virus by 2'-O-Alkylated Polyadenylic Acids," <i>Biochemical and Biophysical Research Communications</i> , <b>1974</b> , 59(2), 608-615	
	<b>114</b>	Arya, S. K. et al., "Inhibition of Synthesis of Murine Leukemia Virus in Cultured Cells by Polyribonucleotides and Their 2'-O-Alkyl Derivatives," <i>Molecular Pharmacology</i> , <b>1976</b> , 12, 234-241	
	<b>115</b>	Branch, A., "A Good Antisense is Hard to Find," <i>TIBS</i> , <b>1998</b> , 23, 45-50	
	<b>116</b>	DeClercq, E. et al., "Influence of various 2- and 2'-substituted polyadenyl acids on murine leukemia virus reverse transcriptase," <i>Cancer Letters</i> , <b>1979</b> , 7, 27-37	
	<b>117</b>	Hobbs, J. et al., "Polynucleotides Containing 2'-Amino 2'-deoxyribose and 2'-Azido-2'-deoxyribose <sup>†</sup> ," <i>Biochem.</i> , <b>1973</b> , 12, 5138-5145	
	<b>118</b>	Hobbs, J. et al., "Poly 2'-Deoxy-2'-Aminouridylic Acid, <b>1972</b> , 46(4), 1509-1515	
	<b>119</b>	Hobbs, J. et al., "Polynucleotides Containing 2'-Chloro-2'-deoxyribose," <i>Biochem.</i> , Eckstein et al., Ed., <b>1972</b> , 11, 4336-4344	
	<b>120</b>	Pieken, W. et al., "Kinetic Characterization of Ribonuclease-Resistant 2'-Modified Hammerhead Ribozymes," <i>Science</i> , <b>1991</b> , 253, 314-317	
<b>EXAMINER</b>		<b>DATE CONSIDERED</b>	

<b>Form PTO-1449 Modified</b>		Docket No. ISIS-5316	Application No. 10/701,257
List of Patent and Publications Cited by Applicant (Use several sheets if necessary)		Applicant Brenda F. Baker, et al.	
U.S. Department of Commerce Patent and Trademark Office		Filing Date November 4, 2003	Group 1635
		Confirmation No. 6115	
<b>OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)</b>			
	<b>121</b>	Pilet, J. et al., "Structural parameters of single and double helical polyribonucleotides," <i>Biochem Biophys Res Commun</i> , <b>1973</b> , 52(2), 517-523	
	<b>122</b>	Rottman, F. et al., "Polynucleotides Containing 2'-O-Methyladenosine. I. Synthesis by Polynucleotide Phosphorylase," <i>Biochem</i> , <b>1968</b> , 7, 2634-2641	
	<b>123</b>	Rottman, F. et al., "Polymers Containing 2'-O-Methylnucleotides. II. Synthesis of Heteropolymers," <i>Biochem</i> , <b>1969</b> , 8(11), 4354-4361	
	<b>124</b>	Shibahara, S. et al., "Inhibition of human immunodeficiency virus (HIV-1) replication by synthetic oligo-RNA derivatives," <i>Nucl. Acids Res.</i> , <b>1989</b> , 17(1), 239-252	
	<b>125</b>	Wincott et al., "Synthesis, deprotection, analysis and purification of RNA and ribozymes," <i>Nucl. Acids Res.</i> , <b>1995</b> , 23(14), 2677-2684	
	<b>126</b>	Zmudzka, B. et al., "Poly 2'-O-methylcytidylic acid and the role of the 2'-hydroxyl in polynucleotide structure," <i>Biochem Biophys Res Commun</i> , <b>1969</b> , 37(6), 895-901	
	<b>127</b>	Bass, B.L., "Double-stranded RNA as a template for gene silencing," <i>Cell</i> , April 28, <b>2000</b> , 101, 235-238	
	<b>128</b>	Boutla, A., et al., "Short 5'-phosphorylated double-stranded RNAs induce RNA interference in <i>Drosophila</i> ," <i>Curr. Biol.</i> , <b>2001</b> , 11, 1776-1780	
	<b>129</b>	Brantl, S., "Antisense-RNA regulation and RNA interference," <i>Biochimica et Biophysica Acta</i> , <b>2002</b> , 1575, 15-25	
	<b>130</b>	Chiu, Y.-L., et al., "RNAi in human cells: basic structural and functional features of small interfering RNA," <i>Molecular Cell</i> , September <b>2002</b> , 10, 549-561	
<b>EXAMINER</b>		<b>DATE CONSIDERED</b>	

<b>Form PTO-1449 Modified</b>		Docket No. ISIS-5316	Application No. 10/701,257
List of Patent and Publications Cited by Applicant (Use several sheets if necessary)		Applicant Brenda F. Baker, et al.	
U.S. Department of Commerce Patent and Trademark Office		Filing Date November 4, 2003	Group 1635
		Confirmation No. 6115	
<b>OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)</b>			
	<b>131</b>	Cogoni, C., et al., "Post-transcriptional gene silencing across kingdoms," <i>Curr. Opinion in Genes Dev.</i> , <b>2000</b> , <i>10</i> , 638-643	
	<b>132</b>	Elbashir, S.M., et al., "Functional anatomy of siRNAs for mediating efficient RNAi in <i>Drosophila melanogaster</i> embryo lysate," <i>EMBO J.</i> , <b>2001</b> , <i>29</i> (23), 6877-6888	
	<b>133</b>	Elbashir, S.M., et al., "RNA interference is mediated by 21- and -22-nucleotide RNA's," <i>Genes &amp; Dev.</i> , <b>2001</b> , <i>15</i> , 188-200	
	<b>134</b>	Elbashir, S.M., et al., "Duplexes of 21-nucleotide RNAs mediate RNA interference in cultured mammalian cells," <i>Nature</i> , May 24, <b>2001</b> , <i>411</i> , 494-498	
	<b>135</b>	Fire, A., et al., "Potent and specific genetic interference by double-stranded RNA in <i>caenorhabditis elegans</i> ," <i>Nature</i> , February 19, <b>1998</b> , <i>391</i> , 806-811	
	<b>136</b>	Guo, S., et al., "par-1, a gene required for establishing polarity in <i>C. elegans</i> embryos, encodes a putative Ser/Thr kinase that is asymmetrically distributed," <i>Cell</i> , May 19, <b>1995</b> , <i>81</i> , 611-620	
	<b>137</b>	Gura, T., "A silence that speaks volumes," <i>Nature</i> , April 20, <b>2000</b> , <i>404</i> , 804-808	
	<b>138</b>	Jorgensen, R.A., et al., "Chalcone synthase cosuppression phenotypes in petunia flowers: comparison of sense vs. antisense constructs and single-copy vs. complex T-DNA sequences," <i>Plant Mol. Biol.</i> , <b>1996</b> , <i>31</i> , 957-973	
	<b>139</b>	Lipardi, C., et al., "RNAi as random degradative PCR: siRNA primers convert mRNA into dsRNAs that are degraded to generate new siRNAs," <i>Cell</i> , November 2, <b>2001</b> , <i>107</i> , 297-307	
	<b>140</b>	Martinez, J., et al., "Single-stranded antisense siRNAs guide target RNA cleavage in RNAi," <i>Cell</i> , September 6, <b>2002</b> , <i>110</i> , 563-574	
<b>EXAMINER</b>		<b>DATE CONSIDERED</b>	

<b>Form PTO-1449 Modified</b>	Docket No. ISIS-5316	Application No. 10/701,257
List of Patent and Publications Cited by Applicant (Use several sheets if necessary)	Applicant Brenda F. Baker, et al.	
U.S. Department of Commerce Patent and Trademark Office	Filing Date November 4, 2003	Group 1635
	Confirmation No. 6115	

**OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)**

141	Mellitzer, G., et al., "Spatial and temporal 'knock down' of gene expression by electroporation of double-stranded RNA and morpholinos into early postimplantation mouse embryos," <i>Mechanisms of Development</i> , 2002, 118, 57-63
142	Montgomery, M.K., et al., "RNA as a target of double-stranded RNA-mediated genetic interference in <i>Caenorhabditis elegans</i> ," <i>Proc. Natl. Acad. Sci. USA</i> , December 1998, 95, 15502-15507
143	Napoli, C., et al., "introduction of a chimeric chalcone synthase gene into petunia results in reversible co-suppression of homologous genes <i>in trans</i> ," <i>Plant Cell</i> , April 1990, 2, 279-289
144	Nishikura, K., "A short primer on RNAi: RNA-directed RNA polymerase acts as a key catalyst," <i>Cell</i> , November 16, 2001, 107, 415-418
145	Parrish, S., et al., "Functional anatomy of a dsRNA trigger: differential requirement for the two trigger strands in RNA interference," <i>Molecular Cell</i> , November 2000, 6, 1077-1087
146	Schwarz, D.S., et al., "Evidence that siRNAs function as guides, not primers, in the <i>Drosophila</i> and human RNAi pathways," <i>Molecular Cell</i> , September 2002, 10, 537-548
147	Sijen, T., et al., "On the role of RNA amplification in dsRNA-triggered gene silencing," <i>Cell</i> , November 16, 2001, 107, 465-476
148	Tabara, H., et al., "RNAi in <i>C. elegans</i> : soaking in the genome sequence," <i>Science</i> , October 16, 1998, 282, 430-431
149	Tijsterman, M., et al., "RNA helicase MUT-14-dependent gene silencing triggered in <i>C. elegans</i> by short antisense RNAs," <i>Science</i> , January 25, 2002, 295, 694-697
150	Timmons, L., et al., "Ingestion of bacterially expressed dsRNAs can produce specific and potent genetic interferences in <i>Caenorhabditis elegans</i> ," <i>Gene</i> , 2001, 263, 103-112

**EXAMINER****DATE CONSIDERED**

<b>Form PTO-1449 Modified</b>		Docket No. ISIS-5316	Application No. 10/701,257
List of Patent and Publications Cited by Applicant (Use several sheets if necessary)		Applicant Brenda F. Baker, et al.	
U.S. Department of Commerce Patent and Trademark Office		Filing Date November 4, 2003	Group 1635
		Confirmation No. 6115	
<b>OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)</b>			
	<b>151</b>	Timmons, L., et al., "Specific interference by ingested dsRNA," <i>Nature</i> , October 29, 1998, 395, page 854	
	<b>152</b>	Tuschl, T., et al., "Targeted mRNA degradation by double-stranded RNA in vitro," <i>Genes &amp; Dev.</i> , 1999, 13, 3191-3197	
<b>EXAMINER</b>		<b>DATE CONSIDERED</b>	

<b>Form PTO-1449 Modified</b>			Docket No. ISIS-5316	Application No. 10/701,257		
List of Patent and Publications Cited by Applicant (Use several sheets if necessary)			Applicant Brenda F. Baker, et al.			
			Filing Date November 4, 2003	Group 1635		
			Confirmation No. 6115			
<b>U. S. PATENT DOCUMENTS</b>						
<b>Examiner Initial</b>		<b>Document No.</b>	<b>Date</b>	<b>Name</b>	<b>Class</b>	<b>Subclass</b>
	153	3,687,808	8/29/72	Merigan, et. al.	195	28
	154	5,013,830	5/7/91	Ohtsuka, et al.	536	27
	155	5,023,243	6/11/91	Tullis	514	44
	156	5,142,047	8/25/92	Tullis	514	44
	157	5,149,797	9/22/92	Pederson, et al.	536	27
	158	5,177,198	1/5/93	Spielvogel, et al.	514	45
	159	5,130,302	7/14/92	Spielvogel, et al.	514	45
	160	5,223,618	6/29/93	Cook, et al.	544	276
	161	5,235,033	8/10/93	Summerton, et al.	528	391
	162	5,256,775	10/26/93	Froehler	536	25.6
	163	5,264,562	11/23/93	Matteucci	536	23.1
	164	5,264,564	11/23/93	Matteucci	536	23.1
	165	5,359,044	10/25/94	Cook, et al.	536	23.1
	166	5,366,878	11/22/94	Pederson, et al.	435	91.3
	167	5,378,825	1/3/95	Cook, et al.	536	25.34
	168	5,459,255	10/17/95	Cook, et al.	536	27.13
<b>EXAMINER</b>			<b>DATE CONSIDERED</b>			

<b>Form PTO-1449 Modified</b>			Docket No. ISIS-5316	Application No. 10/701,257		
List of Patent and Publications Cited by Applicant (Use several sheets if necessary)			Applicant Brenda F. Baker, et al.			
			Filing Date November 4, 2003	Group 1635		
			Confirmation No. 6115			
<b>U. S. PATENT DOCUMENTS</b>						
<b>Examiner Initial</b>		<b>Document No.</b>	<b>Date</b>	<b>Name</b>	<b>Class</b>	<b>Subclass</b>
	169	5,457,191	10/10/95	Cook, et al.	536	27.13
	170	5,466,786	11/14/95	Buhr, et al.	536	26.26
	171	5,476,925	12/19/95	Letsinger, et al.	536	23.1
	172	5,484,908	1/16/96	Froehler, et al.	536	24.31
	173	5,506,351	4/9/96	McGee	536	55.3
	174	5,514,786	5/7/96	Cook, et al.		
	175	5,386,023	1/31/95	Sanghvi, et al.	536	25.3
	176	5,489,677	2/6/96	Sanghvi, et al.	536	22.1
	177	5,539,083	7/23/96	Cook, et al.	530	333
	178	5,506,337	4/9/96	Summerton, et al.	528	391
	179	5,403,711	4/4/95	Walder, et al.	435	6
	180	5,508,270	4/16/96	Baxter, et al.	514	47
	181	4,373,071	2/8/83	Itakura	525	375
	182	4,401,796	8/30/83	Itakura	525	340
	183	4,469,863	9/4/84	Ts'o., et al.	536	27
	184	4,507,433	3/26/85	Miller, et al.	525	54.11
<b>EXAMINER</b>			<b>DATE CONSIDERED</b>			

<b>Form PTO-1449 Modified</b>		Docket No. ISIS-5316	Application No. 10/701,257
List of Patent and Publications Cited by Applicant (Use several sheets if necessary)		Applicant Brenda F. Baker, et al.	
U.S. Department of Commerce Patent and Trademark Office		Filing Date November 4, 2003	Group 1635
		Confirmation No. 6115	

**U. S. PATENT DOCUMENTS**

<b>Examiner Initial</b>		<b>Document No.</b>	<b>Date</b>	<b>Name</b>	<b>Class</b>	<b>Subclass</b>
	<b>185</b>	4,812,512	3/14/89	Buendia, et al.	525	54.11
	<b>186</b>	4,908,405	3/13/90	Bayer, et al.	525	61
	<b>187</b>	5,391,667	2/21/95	Dellinger	526	264
	<b>188</b>	5,519,134	5/21/96	Acevedo, et al.	544	243
	<b>189</b>	5,614,617	3/25/97	Cook, et al.	536	23.1
	<b>190</b>	5,962,425	10/05/99	Walder et al.	514	44
	<b>191</b>	5,804,683	09/08/98	Usman, et al.	536	25.31
	<b>192</b>	5,891,683	04/06/99	Usman, et al.	435	91.31
	<b>193</b>	5,804,683	09/08/98	Usman et al.	536	25.31
	<b>194</b>	5,891,683	04/06/99	Usman et al.	435	91.31
	<b>195</b>	5,214,134	05/25/93	Weis, et al.	536	25.3
	<b>196</b>	5,216,141	06/01/93	Benner	536	27.13
	<b>197</b>	5,223,618	06/29/93	Cook, et al.	544	276
	<b>198</b>	5,264,562	11/23/93	Matteucci	536	23.1
	<b>199</b>	5,264,564	11/23/93	Matteucci	536	23.1
	<b>200</b>	5,434,257	07/18/95	Matteucci, et al.	536	24.3
<b>EXAMINER</b>			<b>DATE CONSIDERED</b>			

<b>Form PTO-1449 Modified</b>		Docket No. ISIS-5316	Application No. 10/701,257
List of Patent and Publications Cited by Applicant (Use several sheets if necessary)		Applicant Brenda F. Baker, et al.	
U.S. Department of Commerce Patent and Trademark Office		Filing Date November 4, 2003	Group 1635
		Confirmation No. 6115	

**U. S. PATENT DOCUMENTS**

<b>Examiner Initial</b>		<b>Document No.</b>	<b>Date</b>	<b>Name</b>	<b>Class</b>	<b>Subclass</b>
	<b>201</b>	5,470,967	11/28/95	Huie, et al.	536	24.3
	<b>202</b>	5,489,677	02/06/96	Sanghvi, et al.	536	22.1
	<b>203</b>	5,541,307	07/30/96	Cook, et al.	536	23.1
	<b>204</b>	5,561,225	10/01/96	Maddry, et al.	536	23.1
	<b>205</b>	5,596,086	01/21/97	Matteucci, et al.	536	22.1
	<b>206</b>	5,602,240	02/11/97	De Mesmaeker, et al.	536	22.1
	<b>207</b>	5,610,289	03/11/97	Cook, et al.	536	25.34
	<b>208</b>	5,618,704	04/08/97	Sanghvi, et al.	435	91.5
	<b>209</b>	5,663,312	09/02/97	Chaturvedula	536	22.1
	<b>210</b>	5,677,437	10/14/97	Teng, et al.	536	23.1
	<b>211</b>	5,677,439	10/14/97	Weis, et al.	536	23.1
	<b>213</b>	5,777,092	07/07/98	Cook, et al.	536	23.1
	<b>214</b>	5,780,607	07/14/98	Goodnow, Jr., et al.	536	22.1
	<b>215</b>	5,792,608	08/11/98	Swaminathan, et al.	435	6
	<b>216</b>	5,792,844	08/11/98	Sanghvi, et al.	536	23.1
	<b>217</b>	5,808,023	09/15/98	Sanghvi, et al.	536	23.1
	<b>218</b>	5,817,781	10/06/98	Swaminathan, et al.	536	22.1
<b>EXAMINER</b>			<b>DATE CONSIDERED</b>			

<b>Form PTO-1449 Modified</b>			Docket No. ISIS-5316	Application No. 10/701,257		
List of Patent and Publications Cited by Applicant (Use several sheets if necessary)			Applicant Brenda F. Baker, et al.			
U.S. Department of Commerce Patent and Trademark Office			Filing Date November 4, 2003	Group 1635		
			Confirmation No. 6115			
<b>U. S. PATENT DOCUMENTS</b>						
<b>Examiner Initial</b>		<b>Document No.</b>	<b>Date</b>	<b>Name</b>	<b>Class</b>	<b>Subclass</b>
	<b>219</b>	5,898,031	04/27/99	Crooke	435	172.3
	<b>220</b>	5,965,721	10/12/99	Cook, et al.	536	23.1
	<b>221</b>	5,969,118	10/19/99	Sanghvi, et al.	536	22.1
	<b>222</b>	6,013,785	01/11/00	Bruice, et al.	536	24.5
	<b>223</b>	6,107,094	08/22/00	Crooke	435	455
	<b>224</b>	6,331,617 B1	12/18/01	Weeks, et al.	536	24.5
	<b>225</b>	6,410,702 B1	06/25/02	Swaminathan, et al.	536	23.1
	<b>226</b>	6,420,549 B1	07/16/02	Cook, et al.	536	24.2
<b>EXAMINER</b>			<b>DATE CONSIDERED</b>			

<b>Form PTO-1449 Modified</b>		Docket No. ISIS-5316	Application No. 10/701,257
List of Patent and Publications Cited by Applicant (Use several sheets if necessary)		Applicant Brenda F. Baker, et al.	
U.S. Department of Commerce Patent and Trademark Office		Filing Date November 4, 2003	Group 1635
		Confirmation No. 6115	

**FOREIGN PATENT DOCUMENTS**

Examiner Initial		Document No.	Date	Country	Translation	
					YES	NO
	227	WO 92/22651	12/23/92	PCT		
	228	WO 92/20822	11/26/92	PCT		
	229	WO 92/20823	11/26/92	PCT		
	230	WO 94/17093	08/04/94	PCT		
	231	WO 94/02499	02/03/94	PCT		
	232	WO 94/02501	03/02/94	PCT		
	233	339,842	02/11/89	EPO		
	234	2-264792	29/10/90	Japan		
	235	WO/07065	04/30/92	PCT		
	236	WO 99/32619	07/01/99	PCT		
	237	WO 00/44895	08/03/00	PCT	X abstract	
	238	WO 00/44914	08/03/00	PCT		
	239	WO 00/49035	08/24/00	PCT		
<b>EXAMINER</b>		<b>DATE CONSIDERED</b>				

